S'COOL E-note September 2010

Greetings from the S'COOL Team! Welcome to Issue 50 of the S'COOL E-note.

This month's issue is a special "A-Train Campaign" issue, inviting you and your students to be part of an upcoming observation campaign for NASA's A-Train Symposium.

S'COOL participants are invited to participate in a worldwide A-train event that will take place from **18 Oct - 05 November 2010**. What is the A-Train? The Afternoon Train, or "A-Train" (http://atrain.nasa.gov/) for short, is a group of satellites that travel, one behind the other, along the same track, as they orbit Earth. Four satellites currently fly in the "A-Train" - Aqua, CloudSat, CALIPSO, and Aura - with a fifth, Glory, and sixth, GCOM-W1, scheduled to join in 2010 and 2011, respectively. Aqua is of course familiar to S'COOL participants as the satellite with afternoon overpasses.

These satellites provide a rich array of instruments to better understand Earth's changing climate and environment. The "A-Train" satellites cross the equator within a few minutes of each other in the afternoon each day. By combining different sets of nearly simultaneous observations from these satellites, scientists are able to study important parameters related to Earth system science and climate change. Also, combining the information from several sources gives a more complete answer to many questions that would not be possible from any single satellite taken by itself.

In conjunction with the second International Symposium on the A-Train Satellite Constellation, which will take place in New Orleans, Louisiana, USA, from 25-28 October, schools around the world are encouraged to make and report ground-based observations at the time of the A-Train overpass. The campaign will begin Oct. 18 and conclude Nov. 5, 2010. Scientists will post A-Train imagery and data about interesting Earth system events. Teachers can connect this event to science, math and writing lessons. And everyone can discuss observations and imagery through a virtual meeting site. For details, please visit:

http://a-train-neworleans2010.larc.nasa.gov/education-OCD.php

How to obtain A-Train satellite overpass times? Use the S'COOL overpass calculator as usual, noting that CALIPSO and CloudSat have now been added as options. This A-Train event serves to launch a closer connection between S'COOL and CloudSat and CALIPSO, satellites that provide a vertical picture through the atmosphere to complement the CERES and MODIS data from Terra and Aqua. To introduce this new dimension, a series of activities is now available from our lessons page. If making observations away from your usual site, you may also use the S'COOL Rover overpass calculator.

Choose the Aqua, CALIPSO or CloudSat satellite. Aqua times are representative of Aura as well, since both carry instruments with a wide swath. CALIPSO and

CloudSat will not have overpasses every day (unless you live near the North or South Pole!) since their instruments view a much smaller part of Earth.

Note that Daylight Saving Time ends in Europe on October 31, 2010. You will need to request a schedule up to that date with daylight saving time and a separate schedule after that date without daylight saving time.

Choose days during the campaign to make S'COOL observations at A-Train times.

Report observations through the standard S'COOL (or S'COOL Rover) data entry process.

Visit the virtual meeting site to contribute to the conversation between scientists, teachers and students; post photos of interesting observations; and, comment on the view from space versus the ground.

When you receive your matching emails, you will note a link to CloudSat Quick Look and CALIPSO Expedited Browse images. These are most relevant if you observe on the days when there are overpasses for those two satellites, since that means you are nearly right under the satellite track. Thus the vertical picture should resemble the piece of sky you saw from the ground (you may want to take and keep pictures from those days for later reference). Our hope is to simplify the interface to these images this fall, so any comments you have during the A-Train event will be appreciated.

During the week, NASA EDGE will be webcasting from the symposium, and developing shows for future broadcast. Check back to this page for a schedule.

Through participation in this international event, everyone can contribute to a conversation on A-Train science!